



July 20, 2016

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BAY AREA AIR QUALITY
MANAGEMENT DISTRICT

Director of Compliance and Enforcement
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

Re: *Semiannual Monitoring Report (Facility No. A0733)*

As required by Section I Part F of the subject Title V permit, the City of Sunnyvale Water Pollution Control Plant (Facility No. A0733) is submitting this Semiannual Monitoring Report for the period from January 1, 2016 through June 30, 2016. After reasonable inquiry, we conclude the following regarding this period of operation:

- There were no deviations during this period;
- Methane concentrations in excess of the limits contained in 8-34-301.2 were detected on two separate occasions at different landfill gas collection system components (described below). The gas collection system was returned to compliance on both occasions within the required timeframe;
- All reports were submitted on time;
- All CEM QA procedures, methodologies, and maintenance were performed as required.

The monitoring required by this permit and the monitoring results are summarized below:

PGF Heat Input Limits Monitoring [Condition 10844 (2)]:

S-14 and S-15 gas throughput for each fuel type is monitored continuously at five second intervals on a daily basis, well in compliance with the required 15-minute interval. Monthly samples are collected from each fuel stream and analyzed for the high-heat value, which is used with the gas throughput to calculate the daily and consecutive 12-month total heat inputs to each engine. All calculated values were in compliance with the permitted limits of 200 MMBTU daily and 72,000 MMBTU monthly over the entire reporting period.

PGF Annual Source Test [Condition 10844 (4, 6)]:

The Annual Source Test for S-14 and S-15 was conducted on January 20, 2016. Analytical results were submitted to your office on March 4, 2016. All results were in compliance with the emission limits and regulations specified in the permit.

**ADDRESS ALL MAIL TO: P.O. BOX 3707 SUNNYVALE, CALIFORNIA 94088-3707
TDD (408) 730-7501**

Landfill Gas Component System Leak Testing [8-34-301.2]:

First and Second Quarter monitoring events were conducted on February 13 and June 11, 2016, to identify any presence of organic compound concentrations above the permit limit of 1,000 ppmv, measured as methane, associated with the landfill gas system components on the facility.

During the first quarter monitoring event conducted on February 13, 2016, component/leak emissions testing of the LFG conveyance piping was performed and detected methane gas concentration up to 1,500 ppmv at the PGF Blower No. 2. Corrective actions were implemented by City personnel, which included switching to PGF Blower No. 1 to isolate the leak on the same day it was detected. Repairs were completed on February 29, 2016, at which time PGF Blower No. 2 was returned to service. Follow-up testing performed on March 1, 2016, indicated that methane concentrations at PGF Blower No. 2 were below compliance limits.

Second quarter leak monitoring conducted on June 11, 2016, identified methane concentrations up to 30,000 ppmv at the flowmeter associated with PGF Engine No. 1. The cause of the leak was a failed gasket, which was promptly replaced the same day with a more robust gasket that provides a better seal between pipe connections (Work Order # 00-0231026). Retesting was performed the same day and confirmed that methane concentrations were within compliance limits. During the same monitoring event, methane concentrations of up to 200 ppmv were detected at PGF Blower No. 1. Although these are below regulatory limits, WPCP staff are proactively investigating the source of emission and performing repairs as needed (Work Order #00-0231025).

Landfill Gas Emission Control System [8-34-113.2]:

During the reporting period, the LFG emission control system was in compliance with the shutdown time limitation of ≤ 240 hours/year.

Sulfur Compounds Monitoring [Condition 19978 (2)]:

Total reduced sulfur compounds in the digester gas used to operate S-16, S-17, and S-18 are monitored quarterly. The results provided following table demonstrate compliance with the 1,550 ppmvd limit:

Total Reduced Sulfur Compounds – Draeger Tube Test results				
Sources: S-16, 17 & 18	Date of Test	Requirement	Result ppmv (dry)	Compliant (Y/N)
First Quarter Sampling:				
Digester Gas	1/13/2016	19978 (2)	700	Y
Second Quarter Sampling:				
Digester Gas	4/12/2016	19978 (2)	740	Y

Emergency Blackstart Generator Reliability-Related Activities [Condition 19929 (3)]:

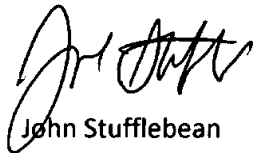
During the reporting period, reliability-related activities performed on the emergency blackstart generator (S-19) were in compliance with the limitation of ≤ 100 hours/year.

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I am the responsible person for the City of Sunnyvale Water Pollution Control Plant, and I certify that this report is true, accurate, and complete.

Please contact Melody Tovar at (408) 730-7740 if you have any questions or comments on this report.

Sincerely,

A handwritten signature in black ink, appearing to read "John Stufflebean".

John Stufflebean
Director, Environmental Services Department

cc: Alfonso Borja, BAAQMD – *email*